

II. Remarks

Claims 1-14 and 16-21 were pending in this application and have been rejected. By this paper, the Applicants amends claims 1-11, 13, 14, and 16-20 to more particularly point out and clarify Applicants' invention. After these amendments, claims 1-14 and 16-21 will be pending.

Reconsideration of the application in view of the above amendments and following remarks is respectfully requested.

Rejections under 35 U.S.C. § 103

Claims 1-4, 16 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication Number 2002/0189880 issued to Tanaka, et al. ("Tanaka") in view of U.S. Patent Number 6,499,554 issued to Yano, et al. ("Yano").

Claims 1 and 7 have been amended to include further limitations relating to the control of the motor (originally named "second torque generating means"). Claims 1 and 7 now specify that the control system controls the motor by pulse-width modulation when the webbing is drawn out by less than a predetermined amount and that this predetermined amount is less than what is required for restricting a passenger. These added limitations are supported by the specification ("Attachment A") in paragraphs [0097], lines 8 - 20, and [0101].

Neither Tanaka nor Yano disclose a control of the motor by pulse-width modulation in order to control the winding speed.

Amended claims 1 and 7 further recite that “spring torque is configured to maintain a lower rotary speed of the spindle than the motor torque.” Support for this language may be found in paragraph [0018] of the Applicants’ application as filed and in numerous other recitations.

Tanaka and Yano, even in combination, fail to teach or suggest these limitation of claims 1 or 7, as amended. Tanaka teaches a seat belt retractor 1 comprising at least a spool 4 for winding a seatbelt webbing 3, a spring means 14 for constantly urging the spool 4 in the belt winding direction and for winding the seatbelt webbing 3. See Tanaka at paragraph [0038] and FIG. 4. According to Tanaka, the spring means 14 generates sufficient torque to store the entire seatbelt webbing 3 on the spool 4 when a passenger is not wearing the seatbelt. See *id.* at paragraphs [0038] and [0061]. Tanaka teaches that a motor 10 assists in seatbelt retraction only if the characteristics of the spring change. See *id.* at paragraphs [0061]-[0062]. Tanaka does not disclose that the spring is configured to maintain a lower rotary speed than the motor. The spring may weaken due to wear over time, but that is not part of the intended configuration, only a failure that may never occur. Tanaka is silent as to the torque generated by the spring as configured compared to the electric motor and thus cannot render this limitation obvious.

Likewise, Yano also fails to teach or suggest the limitation noted as being absent from Tanaka. Like Tanaka, Yano teaches a seat belt retractor 1 comprising at least a reel 4 for winding the seat belt 3 and a spring means 14 for urging the reel 4 in the winding direction of the seat belt. See Yano at col. 9, lines 20-43. Yano is silent on the winding speeds achieved by the individual torque generating systems. But Yano does

mention a speed reducing gear for the motor (see col. 13, lines 57-67). While making no considerations for the winding speed of the winding spring, Yano rather lowers the winding speed of the motor. Yano's teachings do not make it obvious to configure the torque values of the winding spring and motors in a way that the second, motor-driven torque generating system winds the belt faster than the first, spring-driven torque generating system.

Therefore, since neither Tanaka nor Yano, nor a combination of Tanaka and Yano, teaches or suggests the limitations that the motor is pulse-width controlled and that the winding spring is configured to maintain a lower speed than the motor, the Applicants submit that claim 1 and claim 7 are now in a condition for allowance. Therefore, Applicants believe that all claims are in condition for allowance.

All amendments in the remaining claims have been made for consistency only.

Conclusion

In view of the above amendments and remarks, it is respectfully submitted that the present form of the claims are patentably distinguishable over the art of record and that this application is now in condition for allowance. Such action is requested.

Respectfully submitted,

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